

CANADIAN RESPONSES TO THE STRATEGIC DEFENCE INITIATIVE

by Gregory Wirick



THE STRATEGIC DEFENCE INITIATIVE

"We are launching an effort which holds the purpose of changing the course of human history." With this declaration, President Ronald Reagan of the United States told a nation-wide television audience on March 23, 1983 that he was calling on the American scientific community to furnish the means to render nuclear weapons "impotent and obsolete." The President's bold rhetoric, which caught many of his own advisers by surprise, became identified almost over night as the "Star Wars" speech. It set off a flurry of activity in Washington as policymakers struggled to capture in concrete terms precisely what the President had meant.

The implication of his words was clear enough: the supremacy of orthodox strategic doctrine, the theory of mutual assured destruction (MAD) or deterrence based on the threat of retaliation, was being challenged. In its place, the President speculated, "What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil and that of our allies."¹

The difficulty was that, by pursuing a defensive capability the United States risked contravening the Anti-Ballistic Missile (ABM) Treaty of 1972, a cornerstone of MAD and perhaps the pre-eminent arms control accord between the superpowers in the nuclear age. It had limited the superpowers to no more than 100 defensive missiles, all defending one site. A nation-wide defence was thus impossible, Article V forbidding either party "to develop, test or deploy ABM systems or components which are sea-based, air-based, space-based or mobile land-based." On the other hand, research was not precluded and both sides had pursued active research programs since 1972.

Within days of his speech, Reagan commissioned two presidential panels to examine the technology

and policy options of his proposal. The Defence Technology Study team chaired by scientist James Fletcher became known as the Fletcher panel while two Future Security Strategy teams looked at policy aspects. After review and integration by a senior interagency group, the findings were submitted in November 1983.² Both panels rejected the President's original concept of a leak-proof or absolute defence, suggesting instead that a limited defence could significantly reduce the effect of a Soviet attack and increase Soviet uncertainty, thereby enhancing deterrence. It was argued that such a defence would encourage the Soviets to enter into arms limitations agreements more readily and would increase American resolve to defend its allies, as a result of greater confidence that the Soviet Union would not strike the United States.

The result of the panels' recommendations was National Security Decision Directive 119 setting up the Strategic Defence Initiative (SDI). It called for "the initiation of a focussed program to demonstrate the technical feasibility of enhancing deterrence . . . through greater reliance on defensive strategic capability."³ SDI would comprise research on technologies with both Ballistic Missile Defence and anti-satellite applications and would be divided into five basic areas:

1. surveillance, acquisition, tracking and kill assessment;
2. directed energy weapons such as lasers and particle beams;
3. kinetic energy weapons designed to destroy their target by direct impact rather than by explosion or directed energy;
4. systems analysis and battle management;
5. support programs.

The U.S. administration estimated that these programs would cost \$26 billion over five years and requested \$1.77 billion for Fiscal Year 1985, a figure that was later reduced by Congress to \$1.4 billion.

The President's initial desire to seek a leak-proof shield to defend the entire population of the United States and its allies had been reshaped, though officials maintained that total defence remained the ultimate objective. Yet the change did reflect some sensitivity to the barrage of criticism which had greeted the President's proposal from its announcement. Various critiques had been published including an April 1984 report for the U.S. Congressional Office of Technology Assessment which concluded that even a nearly perfect defence "is so remote that it should not serve as the basis of public expectation or national policy."⁴

In the medium-term, therefore, the emphasis shifted to limited measures intended to defend against limited nuclear attacks or to limit damage from a full-size nuclear attack. Paul Nitze, the President's chief arms control adviser, referred to a new kind of deterrence based on mutual assured security—the ability of the defence to deny success to a potential aggressor's attack. Nitze added two criteria: the new defences must be reasonably capable of surviving or their vulnerability might invite a first strike, and they must be cost-effective at the margin—that is, "cheap enough to add additional defence capability so that the other side has no incentive to add additional offensive capability to overcome the defence."⁵

These considerations aside, the administration did not waver from its determination to reexamine strategic defence for three fundamental reasons which Nitze outlined:

1. the perception of Soviet superiority in the "crucial indices of strategic power" and the failure of the SALT (Strategic Arms Limitations Talks) process to promote an equitable and stable balance in offensive nuclear arms;
2. the President's belief that "while deterrence based on the threat of offensive nuclear retaliation must form the basis of U.S. national security policy for the foreseeable future, the United States should not be content to confine itself to that in perpetuity";
3. the great advances that have been made in the last decade in many areas relevant to ballistic missile defence such as sensors, micro-electronics and data-processing.⁶

INITIAL CANADIAN REACTIONS

SDI from its conception was a divisive factor in Canadian politics. The Mulroney government, which assumed office in September, 1984, appeared to be of two minds. While External Affairs Minister Joe Clark expressed serious reservations, Robert

Coates, the Minister of National Defence, was enthusiastic about the potential industrial benefits of Canadian participation, and the Prime Minister kept his own counsel.

The government's first formal statement on the issue was made by Joe Clark in the House of Commons on January 21, 1985.⁷ He described Western research on the feasibility of defensive systems as "prudent" in the light of recent Soviet research advances, but welcomed their inclusion in upcoming U.S.-Soviet arms negotiations. He also warned that the development and deployment of space-based systems "would transgress" the limits of the ABM Treaty as currently constituted," a treaty which Canada strongly supported. In this regard, the government welcomed "President Reagan's affirmation that the U.S.A. would not proceed beyond research without discussion and negotiation." In the extensive debate which followed in the Commons that day, Liberal and NDP members made clear their opposition to any form of militarization in outer space and questioned the government's intentions.

The overriding issue for the opposition parties was whether a link existed between SDI and the planned updating of NORAD's radar warning system. Similar concerns were expressed in the report of the Senate Special Committee on National Defence, entitled "Canada's Territorial Air Defence," which was released on January 23. When the Standing Committee of the House on External Affairs and National Defence held a hearing in mid-February on the proposed air defence modernization, discussion again centred on the potential linkage between the proposed North Warning System and SDI.⁸ Government ministers repeatedly denied any such linkages. But concerns surfaced once more during the visit to Ottawa on March 6 of Paul Nitze who refused to rule out the possibility that the North Warning System could become part of SDI.⁹ One week later (March 13) the newly-appointed Defence Minister Erik Nielsen announced in the House that the government had approved the North Warning System and that the agreement would be signed at the summit meeting of President Reagan and Prime Minister Mulroney in Quebec City on March 18.

THE INVITATION

The Quebec City summit set the stage for the formal invitation to Canada to participate in the SDI program. A few days later the Prime Minister made his first public statement on the question when he remarked off-handedly that he would consider involvement if it meant 10,000 new jobs in Winnipeg.¹⁰ The formal invitation from U.S. Secretary

of Defence Caspar Weinberger was issued on March 26 to all of the NATO defence ministers, including Canada's, who were meeting in Luxembourg at the time. Weinberger asked that governments inform him of their decision within 60 days. The Secretary's deadline had been imposed without consultation in Washington, however, and both the White House and State Department were quick to reproach him. He, in turn, wrote Nielsen and other recipients advising them not to take his deadline too seriously, but not before considerable irritation had been expressed in various NATO capitals.¹¹

The Prime Minister confirmed the invitation on March 27 telling reporters that Canada's decision would be taken "in a timely manner" consistent with the ABM Treaty.¹² But he voiced reservations both that day and the next during a visit to his home riding when he remarked, "My enthusiasm for all of these matters . . . is restrained."¹³ For this, he had his wrists slapped by the Ottawa *Citizen* which advised the Prime Minister in an editorial on April 1 to stop dithering in public until the cabinet decided. The *Toronto Star* was more pointed: in a March 31 editorial it counselled staying clear of any involvement.

On April 18, the *Globe and Mail* ran its first editorial on the subject: "Stay out of the SDI." It maintained that the U.S. was certain to keep the most sensitive high technology contracts at home, farming out tasks at the "lower end of the scientific spectrum" which, in any case, would be capital-intensive research activities creating relatively little employment.

On the same day External Affairs Minister Clark announced that the cabinet had chosen senior bureaucrat Arthur Kroeger to head a small team of experts to assess the invitation and examine its strategic, scientific and economic implications.

THE JOINT COMMITTEE

On May 14 the government tabled its Green Paper on international relations, "Competitiveness and Security", and announced the formation of a Special Joint Parliamentary Committee to study the paper. A debate was sparked at once by the absence of Canadian participation in SDI from the list of agenda items. The opposition refused to participate in the committee unless a decision on SDI was postponed until public hearings had been held and the committee had submitted an interim report. The impasse was broken on May 16 when Clark announced that the government's decision would not be forthcoming for another three to four months, thus giving the committee ample opportunity to prepare its interim report.

The committee was to examine both the question of bilateral trade with the United States and Canada's participation in SDI research. It was comprised of five senators and 12 members of parliament under the joint chairmanship of Senator Jacques Flynn of Quebec and Thomas Hockin, M.P. for London West, and a political scientist by training. Representation consisted of 10 Conservatives, 5 Liberals and 2 New Democrats. Among the opposition members were External Affairs critic Jean Chretien and Lloyd Axworthy of the Liberals and NDP External Affairs critic Pauline Jewett, all of whom had been particular thorns in the government's side over SDI. Public hearings were scheduled to begin in Halifax on July 15, to include Ottawa, Montreal, Toronto, Vancouver, Calgary, and Winnipeg.

Prior to the hearings the Liberal party set up a task force on peace, security and world disarmament under the chairmanship of Jean Chretien. It heard from 71 groups in six cities between May 27 and June 7 and released its report on July 13 only two days before the Joint Committee began to hear public testimony. The exercise was widely perceived as a means of embarrassing the government; consequently, the task force's strong recommendation against participation came as little surprise and was generally treated skeptically by the press.¹⁴

Despite the constraints that time imposed and the vagaries of the holiday season, the committee was overwhelmed by the public response. With only a month to deliver them, almost 700 individuals and organizations sent written submissions, the vast majority of them pertaining to SDI. The committee also heard from 127 scheduled witnesses and 196 witnesses from the public. Many of the presentations and briefs were major efforts in themselves, the totality representing an enormous investment of time and energy on the parts of citizens literally from coast to coast.

Submissions to the Joint Committee were received from private citizens, organizations concerned with peace and security issues, industry, labour, military and church groups, academics, diplomats and strategic specialists. The issues they raised can be broadly characterized as falling into four different categories: the economic implications of SDI, its technical reliability, its impact on the arms control process and East-West relations, and the effect on Canada's international reputation and national sovereignty.

1) *Economic Issues*

Most observers, regardless of their position on SDI, agreed that its potential for job creation in Canada would be small, particularly given the capital-intensive nature of the research in which Canada

would be involved. The Canadian Centre for Arms Control and Disarmament summarized these arguments in a report released on August 19, a few days before the Joint Committee's interim report. The Centre calculated that only 2,034 jobs would be directly created and another 6,366 indirectly, assuming that one per cent of the SDI budget was spent in Canada during the five-year research program: such figures were "marginal to Canada's high technology sector and negligible to the economy as a whole."¹⁵

The question of other economic benefits from the high technology emphasis of SDI research was more closely argued. Industry groups made the case that Canada could not afford to ignore these benefits. The Aerospace Industries Association of Canada (AIAC), representing 156 companies with 45,000 employees, contended that the research would create "a tremendous technological surge" which would have significant spin-offs in the civilian sector, it being generally accepted within the international aerospace community that 90% of research and technology were common to civil and military aeronautics. In conclusion, the AIAC warned that failure to participate could precipitate a "brain drain" effect since Canadian companies would not likely be permitted to share in SDI work unless some technology was unobtainable either in the U.S. or in another participating country. It also warned that "such a rebuff . . . could add difficulty to Canada in retaining, let alone gaining more, access to the U.S. market so vital to our economy."

Some doubt was cast on the uniformity of industry opinion by an August 10 Ottawa *Citizen* report of a confidential study prepared for the federal cabinet by Spar Aerospace. It suggested that industry privately expected few windfalls from SDI and that the only way Canada could reap major benefits would be to launch its own Canadian Defence Initiative to complement the American program. Although Spar had not appeared before the Committee, its report received wide attention.

2) *Technical Reliability*

Many of those opposed to participation cited evidence from the Union of Concerned Scientists and other American organizations or research which threw grave doubts on the technical reliability of Ballistic Missile Defence. Within five weeks of the U.S. invitation, 780 Canadian scientists and engineers signed a declaration opposing participation and refusing to cooperate if the government decided to accept. Computer scientists were among the most outspoken; forty members of the University of Toronto's computer science department, for example, sent a letter to the government stating that

the computer capabilities required by SDI were "beyond any current or reasonably foreseeable computer science techniques."¹⁶

While proponents of SDI involvement held that such views were prejudging what was, after all, a research program, computer science David Parnas of the University of Victoria argued forcefully that the breakthrough required would be "a revolution in mathematics" and that no such miracle could be expected. Parnas, who had resigned from a SDI Organization panel on computing research in support of battle management, provided the committee with a devastating critique of the software engineering aspects of SDI and of the SDI Organization itself.¹⁷

3) *Arms Control Issues*

The central issue as defined by most submissions to the Joint Committee was the effect of SDI on the arms control process and East-West relations. It was over this issue, too, that the debate became most doctrinal in its orientation. While peace groups asserted that the research program was simply another step in the alarming proliferation of weapons of all kinds and a major stumbling block in any arms talks between the superpowers, organizations such as the Canadian Institute for Strategic Studies maintained that U.S. efforts were nothing more than an essential antidote to advances in Soviet research.

Chemistry professor John Polanyi of the University of Toronto disputed the latter view, however, pointing out that neither the Pentagon nor the Scowcroft Commission set up by President Reagan with full access to intelligence reports saw any need for accelerated research into ABM systems. He also cited a U.S. Defense Department study which compared U.S. and Soviet achievements in 13 technologies required for advanced ABM deployment: it concluded that the U.S. was ahead in twelve and that the two sides had equivalent capabilities in the thirteenth, namely directed energy devices.¹⁸

On the other hand, former Deputy Minister of National Defence C.R. Nixon argued that the principal purpose of SDI research was to resolve whether BMD would work and that effective BMD systems would complement existing deterrence by denial. If uncertainty remained after extensive research, that uncertainty would in itself act to deter and assure both sides: a potential aggressor could neither be certain of its ability to succeed in a pre-emptive strike nor could it rely on its own defensive systems to shield it from retaliation.¹⁹

The Canadian Centre for Arms Control and Disarmament urged Canada to seize the "high ground of arms control" by working actively to ensure that reasonable boundaries were maintained around SDI research. This would mean monitoring possible

infringement of the ABM Treaty closely and clearly expressing our concerns in cooperation with European allies. The Centre recommended against formal participation and against any government support for private sector involvement while not preventing Canadian firms from bidding on SDI-related contracts. Formal endorsement or material support "could give the government a stake in SDI which would make open criticism of, or even disassociation from, SDI much more politically costly, were such action necessitated by later events."

4) *Canadian Reputation and Sovereignty*

Several witnesses raised concerns about the effect the decision would have on Canada's international reputation and on the exercise of Canadian sovereignty. Political scientist Adam Bromke of McMaster University testified that proceeding with SDI research would be contrary to the fundamentals of postwar Canadian foreign policy—of maintaining support for the western alliance while simultaneously striving to reduce East-West tensions and promoting arms control.²⁰ His concern was echoed by the World Federalists of Canada which feared that Canadian involvement would undermine our reputation as a nation committed to the "peaceful settlement of international disputes, U.N. peace-keeping and the negotiation of many arms control agreements."²¹

The Council of Canadians suggested that SDI would almost certainly require deployment of BMD sensors and interceptors on Canadian territory. Direct Canadian participation could also entail additional encroachments on Canada's territorial sovereignty.²² The Canadian Council of Churches made the same point; to participate in the research phase, they contended, would make it difficult for Canada to say "no" to deployment in Canada's north.²³ The Church Council endorsed the Ottawa presentation of Project Ploughshares who insisted that SDI would increase pressures to establish comprehensive air defence systems in the north. Ploughshares also reiterated that SDI participation was "out of sync with what we have traditionally stood for in Canada. We have always argued for finding political means rather than military or technological means."²⁴

Other Responses

While the Joint Committee provided a focus for discussion about SDI, other voices continued to be heard outside the hearing rooms. The government reported receiving an unusually large amount of mail on the subject—the bulk of it opposed—partly in response to a campaign initiated in February by

Mayor Marion Dewar of Ottawa and Joanna Miller of Saskatoon. On the other hand, a Gallup poll early in July reported that 53% of the public supported participation while 65% approved if it meant more jobs for Canadians (based on a survey conducted between June 10 and 30).

THE COMMITTEE DECIDES

The first news of the Joint Committee's deliberations came in the form of a leak. Early press reports on August 21 indicated that a flat rejection of participation had been defeated by a single vote. Nine Conservatives defeated the motion which had the support of all seven opposition members plus a lone Conservative.

The report itself listed four options for the government: unqualified acceptance of the U.S. invitation, qualified acceptance, qualified rejection and unqualified rejection. The committee said that it was unable to arrive at a majority recommendation because it lacked access to classified technical information, though opposition members insisted that they had heard enough to reject the invitation and, consequently, appended strong statements of dissent to the report. It was clear, however, that the committee majority favoured a middle course which meant a qualified decision, with some preference shown in the report's wording for a qualified rejection. Tom Hockin, one of the committee's chairmen, confirmed this when he told the press that, in effect, the committee had given an "interim no" to Washington.

The committee's preference was implicit in its description of the four options open to the government.²⁵ Among the concerns raised in the report were the following:

Unqualified Acceptance

- By opting for full participation, Canada risked *de facto* involvement in later phases as well because the barrier between research and development was unclear.
- Full participation was unlikely to result in major contracts for Canadian organizations. The drain of scientific expertise to the U.S. would probably go on just as rapidly even if the government decided to participate and Canada were then barred from the core areas of research. Moreover, if Canadian experts were deeply involved in SDI, this would divert scarce financial and manpower resources from other high technology programs.
- Later withdrawal might be "exceedingly awkward".

Qualified Acceptance

- Canada could concentrate on technologies that correspond to Canadian expertise or security interests (communications and surveillance) and that did not risk being destabilizing or undermining arms control.
- Yet qualified acceptance would not significantly influence U.S. policy, the costs and benefits would be roughly the same as in the case of the first option and Canada could still not escape the charge that it would be endorsing "an escalation of the arms race" which would hamper the conduct of Canadian diplomacy in international meetings on arms control.

Qualified Rejection

- Canada would be better able to monitor strategic defence programs of both superpowers and express its concerns accordingly by not being formally tied to SDI.
- Canada would keep options open and not preclude involvement at a later stage after thoroughly assessing the program's implications.
- An autonomous space program, with both civilian and military dimensions, fitted best with this option.
- The drawback was the risk of being unacquainted with developing defence technologies certain of which could relate to the defence of Canadian territory.

Unqualified Rejection

- Prohibition on research undertaken by the private sector would likely damage the Canada-U.S. defence relationship and diminish the confidence and trust which have permitted a fairly free flow of information and have "powerfully bolstered Canadian security."

In general terms, the committee recommended that the government remain firmly committed to the letter and spirit of the ABM Treaty. It emphasized that technological and economic factors should be considered subordinate to strategic and arms control concerns in the formation of the government's decision. It also stressed the importance of a coherent plan for the Canadian aerospace industry which would straddle both military and civilian purposes. The three issues on which no consensus could be reached even by a majority of the committee were:

1. the effect participation in the research phase would have on Canada's arms control efforts;

2. the size of commitment that would be expected from Canada and its effect on the fulfillment of existing military roles and responsibilities;
3. which technological program would best provide a clear focus for the Canadian space industry and support for Canada's military objectives.

THE GOVERNMENT DECIDES

After extensive meetings with his cabinet on a wide range of topics and after meeting as well with the Progressive Conservative Caucus, the Prime Minister conveyed the government's decision to President Reagan in a 15-minute telephone conversation at 3:20 p.m. on Saturday, September 7. News of the decision and the text of Defence Minister Nielsen's reply to Secretary Weinberger were released to the press the same day.

The government had concluded that Canada's own policies and priorities did not warrant a government to government effort in support of SDI research. The Prime Minister hastened to add, however, that "although Canada does not intend to participate on a government to government basis . . . private companies and institutions interested in participating in the program will continue to be free to do so."²⁶ Mr. Mulroney emphasized the government's belief that SDI research by the U.S. was "both consistent with the ABM Treaty and prudent in light of significant advances in Soviet research and deployment of the world's only existing ballistic missile defence system." Mr. Nielsen's letter relayed the government's conviction "that the extensive existing cooperation in defence research between our two countries is mutually beneficial and should be encouraged to grow."

By and large Liberal and New Democratic spokespersons hailed the government's decision as a vindication of the opposition, while James Stark, president of Operation Dismantle, spoke for many peace groups when he remarked, "We are going to take this as a victory. We don't get too many of them, you know."²⁷ Both of the major Toronto newspapers applauded the government, the *Star* commenting on September 8 that henceforward Canadian interest in SDI would be from the perspective of arms control and the *Globe and Mail* declaring on September 9 that the decision proved "an independent foreign policy is alive and well and living in Ottawa." Albert Juneau in *Le Devoir's* editorial on September 10, however, sounded a cautionary note: he took issue with the Prime Minister's assertion that the Soviet Union was far advanced in ballistic missile defence and called for recognition of the dangers that SDI posed to arms control negotiations in Geneva.

CONCLUSION

It has been argued that the government itself was partly responsible for arousing public controversy to such an extent during what might otherwise have been a typically sluggish summer season. It was, after all, the government that chose to delay taking a decision about Canadian participation and, indeed, to establish a parliamentary committee to examine the issue. By doing so, it unquestionably prolonged the decision-making process and allowed time not only for public opposition to build, but also provided such opposition with an official forum at which to express its concerns.

It is fair to assume that the parliamentary committee hearings were a genuine attempt to take the pulse of the nation on two contentious issues. Certainly the virtue of public consultations was an important part of the new government's lexicon, one it frequently invoked to distinguish itself from the previous administration.

Although the parliamentary committee approach gave the controversy more scope, it is by no means clear that a quick decision, especially one in favour of participation, would have avoided substantial political "fallout." The fact is that the question of Canadian involvement in SDI research raised a series of longstanding Canadian concerns which touched on everything from defence policy and a commitment to arms control, to our image of ourselves in the world community, to, above all, our relationship with the United States. Canada alone of the NATO countries shares the North American continent with the United States. This very proximity inevitably coloured Canadian ruminations on the subject as much as the spur of keeping up with American high technology informed the decisions of those other countries which had been invited to participate.

In very general terms, as much as Canadians like and admire their southern neighbours, there is a significant element of the population that is always concerned to draw distinctions between the two countries and that is vigilant in defence of Canadian independence. No government can afford entirely to ignore this element, in part because it cuts across party lines, in part for its influence and, finally, because of its sheer size. The context of the Mulroney government's decision cannot thus be discounted. In the first place, the government was perceived as more favourably disposed to the United States—particularly to current trends there—than its predecessor. More specifically, the SDI decision was taken in the wake of the *Polar Sea** incident and as a prologue to a concerted effort by the government to enhance Canada's trading relationships with the United States. Given these kinds of signals, it was almost certainly essential in the

government's view for it not to be perceived as wholly within the American orbit.

There were other considerations to which the Prime Minister alluded. In his public statement of September 7 he drew attention to one of his first pronouncements on the SDI issue in March when he referred to his concern about "getting involved in a situation where the parameters are beyond our control and where the government of Canada does not call the shots."²⁸ Mr. Mulroney noted as well, in an interview on September 5 with CBC radio host Peter Gzowski that the decision had to be weighed in terms of Canada's international reputation and its commitment to arms control.

The decision still left many unanswered questions. Some of these, perhaps most, would remain unanswered in the foreseeable future precisely because, as the Joint Committee had written in its interim report, the particular decision taken left Canada's options open. SDI itself, however, was certain to remain a highly relevant policy issue for Canada. The concerns expressed by the opposition, for example, over possible links between SDI and the North Warning System are likely to prove a precursor of things to come. The NORAD review to take place prior to its expiry in May of 1986 will be another focal point for the ongoing debate. The Senate Defence Committee's recommendation for a Canadian military space program, which had been taken up with great enthusiasm by the *Globe and Mail* (editorials of June 17, August 26, September 9) during the SDI debate, is likely to be considered again during the NORAD review.

A Canadian military space program would involve surveillance of Canadian air space by space-based systems to warn of penetration by hostile aircraft or cruise missiles. It would preserve Canadian sovereignty and yet it would also complement any U.S. ballistic missile defence system that might be deployed. Moreover, if the United States did proceed with a Ballistic Missile Defence system, as the *Globe and Mail* pointed out, "it will insist on space-based radar or sensors to monitor continental air space, whether Ottawa likes it or not."²⁹

The response of Canadians to the Strategic Defence Initiative during 1985 indicates that it will not be easy to find a consensus on these policy alternatives.

*The United States had sent a Coast Guard ice-breaker, *Polar Sea*, through the Northwest Passage in early August without acknowledging Canada's claim of sovereignty over the passage, thus touching off a major furor.

NOTES

1. *Congressional Quarterly*, vol. 41, no. 12, March 26, 1983, pp. 629-33.
2. *Strategic Defenses: Background Information*, Union of Concerned Scientists, 1984.
3. *Arms Control Chronicle*, Canadian Centre for Arms Control and Disarmament, No. 3, July 1984, p. 19.
4. Wayne Biddle, "Study Challenges Space Laser Plan," *New York Times*, April 25, 1984.
5. Leslie H. Gelb, "Vision of Space Defense Posing New Challenges," *New York Times*, March 3, 1985.
6. *U.S. Embassy Text*, June 27, 1985 adapted from speech by Paul Nitze to 1985 commencement exercises of the Johns Hopkins School of Advanced International Studies.
7. Canada. *House of Commons Debates*, January 21, 1985.
8. *Arms Control Chronicle*, CCACD, Nos. 6-7, Feb.-Apr. 1985, pp. 9-11.
9. *Ibid.*, p. 13.
10. Carol Goar, "Is Mulroney hoping to have it both ways on Star Wars?" *Toronto Star*, April 4, 1985.
11. David MacDonald, "Weinberger Letter Causes Controversy," *Winnipeg Free Press*, May 1, 1985.
12. Joe O'Donnell, "Star Wars plan a threat to peace, Mulroney warned," *Toronto Star*, March 28, 1985.
13. Christopher S. Wren, "Canadian Voices 'Star Wars' Doubts," *New York Times*, March 29, 1985.
14. Lise Bissonnette, "Les libéraux et l'IDS," *Le Devoir*, July 17, 1985 and "Hardly Pearsonian," *Ottawa Citizen*, July 18, 1985 (editorial).
15. *The Economics of Star Wars: Critical Questions for Canada*, CCACD, August 19, 1985.
16. Letter from Raymond Reiter, *Toronto Star*, July 4, 1985.
17. David L. Parnas, *Software Aspects of Strategic Defence Systems*, Submission to Special Joint Committee on International Relations, July, 1985.
18. John C. Polanyi, *Should Canada Participate in SDI Research?*, Brief to the Special Joint Committee on International Relations, July 24, 1985.
19. C.R. Nixon, *Submission to the Joint Committee*, July, 1985.
20. *Interim Report*, Special Joint Committee on Canada's International Relations, August 23, 1985, p. E-77.
21. World Federalists of Canada, *Brief to the Special Joint Committee on Canada's International Relations*, July, 1985.
22. *Interim Report*, pp. E-56-57.
23. *Ibid.*, p. E-74.
24. *Ibid.*, p. E-66.
25. *Interim Report*, Special Joint Committee on Canada's International Relations, August 23, 1985, pp. 91-115 *passim*.
26. *Transcription of Remarks* by Prime Minister Brian Mulroney, September 7, 1985.

27. Sallot, "Peace groups pleased by rejection of Star Wars," *Globe and Mail*, September 9, 1985.
28. *Transcription* by Mulroney, September 7, 1985.
29. "Canada's space option," *Globe and Mail*, June 17, 1985 (editorial).

FURTHER READING

Strategic Defence Initiative

Anti-Satellite Weapons: Arms Control or Arms Race? Union of Concerned Scientists, June 30, 1983.
Ballistic Missile Defence, Ashton Carter and David Schwartz (eds.), The Brookings Institution, 1984.
Space-Based Missile Defense, Union of Concerned Scientists, March 1983.
Directed-Energy Missile Defence in Space, U.S. Congress, Office of Technological Assessment, Washington, D.C., U.S. Government Publishing Office, 1984.

Articles

Zbigniew Brzezinski, Robert Jastrow and Max M. Kampelman, "Defense in Space is Not 'Star Wars,'" *New York Times Magazine*, January 27, 1985.
 Robert Jastrow, "Reagan vs. the Scientists: Why the President is Right about Missile Defense," *Commentary*, January 1984.
 Richard Garwin, Kurt Gottfried and Donald Hafner, "Antisatellite Weapons", *Scientific American*, Vol. 250, Number 6, June 1984.

Canadian Perspectives

Report on the Special Committee of the Senate on National Defence, *Canada's Territorial Air Defence*, January 1985.
The Economics of Star Wars: Critical Questions for Canada, Canadian Centre for Arms Control and Disarmament, August 19, 1985.
Interim Report of the Special Joint Committee on Canada's International Relations, August 23, 1985.

Gregory Wirick is a freelance writer based in Ottawa.

This paper is published by the Canadian Institute for International Peace and Security, October 1985. The views expressed are those of the author. For additional copies, please write to the Institute at the following address:

307 Gilmour Street, Ottawa, Canada K2P 0P7

Le présent exposé est également publié en français.